DOCUMENT RESUME

ED 318 308 HE 023 296

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TITLE The Anxiety of Chinese Students.
PUB DATE Oct 89
NOTE 21p.; Paper presented at the Annual Meeting of the American Evaluation Association Meeting (San Francisco, CA, October 19-21, 1989).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Anxiety; Cross Cultural Studies; *Cultural Differences; *Foreign Students; Higher Education; Sex Differences; *Student Characteristics; *Test Anxiety
IDENTIFIERS *Taiwan; *Trait Anxiety

ABSTRACT

In order to better understand and counsel Chinese students in the United States, the trait anxiety and test anxiety of 67 Chinese graduate students in education attending two universities in Taiwan were measured. Normative assessments for the total group showed that the sample fell within the normal range of U.S. students as defined in Test Manuals. T-test analyses yielded no statistically significant differences on scales or subscales between male and female subjects. Rankings of Trait Anxiety and Test Anxiety items found the item, "I feel confident and relaxed while taking a test", rated highest and the item, "During exams I get so nervous that I forget facts I really know," rated the lowest. Results underscored the importance that cross cultural studies have in effectively counseling and understanding foreign students in the United States. A Chinese translation of the questionnaire is appended. Contains 21 references. (DB)

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THE ANXIETY OF CHINESE STUDENTS

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The American Evaluation Association
San Francisco, California
October 19 - 21, 1989

HE 023 296

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ABSTRACT

THE ANXIETY OF CHINESE STUDENTS

As late as 1983, it was reported that university personnel are dealing with 300,000 foreign students, and the needs of foreign students and obligations of institutions are ever increasing. It is estimated that by 1990, one million international students may be attending colleges and universities in the United States. Cultural, social, financial, educational, and academic factors have been shown to influence their anxiety and success. And cultural shock often results in somatic anxiety and physical illness.

Because of the cultural differences in values and learning extant in the US and Chinese educational systems, we approach the problem of assessing Chinese anxiety with a note of caution. Of direct influence appears to be the group vs. individual cultural orientation and how this value translates into classroom practices and learning expectations. We hypothesized that it is essential to assess student anxiety in their native country before we can fully understand and interpret the cultural learnings of foreign students studying in the US.

It was the purpose of our study to assess the anxiety of Chinese students in their native country. We measured both trait anxiety and test anxiety in graduate schools of education in Taiwan.

After both instruments were translated into Chinese, they were administered in May/June, 1989 to sixty- seven Taiwanese graduate students in education attending two universities in Taiwan. Correlational analyses revealed that internal consistency was high for all scales and subscales.

T-test analyses yielded no statistically significant differences on scales and subscales between male and female subjects. Normative assessments for the total group showed that our sample fell within the normal range of US students defined in Test Manuals. Rankings of Trait Anxiety and Test Anxiety items revealed topics of most and least anxious for Taiwanese students - calm, cool, collect, content among those most highly ranked; and feelings of defeat, failure, nervousness, and tenseness, the lowest ranked.

Our findings and the literature review led us to conclude that cross-cultural studies are essential if we are to counsel foreign students effectively. We caution against generalizing affective findings from studies of foreign students studying in the US without knowledge of cultural antecedents and possible sources of anxiety within their native country.

Costello (1976) notes that the mid-twentieth century is called "the Age of Anxiety." Anxiety research has been accompanied by studies of test anxiety (TA) beginning in the early 1950's. Hembree (1988) reports the results of a meta-analysis of 562 studies summarizing the causes, effects, treatments, and correlates of TA in the Spring Issue of the Review of Educational Research. His article presents an excellent summary of TA in the United States, but the cultural dimension is excluded.

As late as 1983, it was reported that university personnel are dealing with 300,000 foreign students (Jenkins and others, 1983), and the needs of foreign students and obligations of institutions are ever increasing. It is estimated that by 1990, one million international students may be attending colleges and universities in the United States (Carter and Sedlacek, 1985). Surveys of foreign students have shown that it is no easy task to obtain an education in the United States. Cultural, social, financial and academic factors have been shown to influence their success in either our society or the country of origin (Chu, 1971; Ko, 1978).

Cultural shock may be expected, but only experienced by the foreign student. Symptoms may include loneliness, depression, irritability, or rigidity, none of which are conducive to academic

potential or success (Reinicke, 1986). Surveys of international students show that study, writing and library skills, as well as test taking anxiety, rank high among educational problems (Leong, 1984). Social and personal interactions are constrained. Knowing appropriate behaviors, making friends, relating to students and instructors may become cultural stressors (Hartung, 1983). Financial concerns are a continuing problem for foreign students. Cultural shock often results in somatic anxiety and physical illness (Leong, 1984, Ward, 1962).

Heading the list of most academic concerns is having to learn and interact with a different language. Language problems may arise from oral or written English. Many universities offer courses, set English standards, and provide a number of "special activities," including those at orientation and cultural events. The appropriateness of university programs designed for foreign students, and the extent to which American students and faculty are involved, is a moot point (McCluskey, 1969; Goodwin and Nacht, 1983).

As colleges and universities try to accommodate foreign students, we must be aware of the society they are entering, and the cultural values, fears, and life-style each bring to their place of learning. The American report, Japanese Education Today, by R. Lesstma, R. August, B. George, and L. Peak, including the

work of Stevenson and his colleagues (1987), was quoted in Research News and Comment, "Cultural Comparisons of Schooling," (August- September, 1987. Educational Researcher), summarizing the educational practices of the United States as contrasted to the Asians, particularly the Japanese and Chinese students. In this summary, cultural differences are detailed through assessments of educational time, instructional intent, teaching practices, and home/community support. We will briefly recap some of these observations below, so that we may better interpret our findings of anxiety of Chinese students, born, raised and studying in Taiwan.

It was reported in Research News and Comment that more academic time throughout the day and the school year is spent by students in Taiwan, China, and Japan than in the United States. It was observed that their curriculums are well integrated, leaving little time for redundant activities, and a common core is required in the large majority of Asian school systems.

Teaching practices and home support in most Asian communities observed are closely related to cultural values. The teacher is recognized as head of the class in Asian societies. Students spend more time listening to the teacher lecture and less time dedicated to procedural matters than has been observed in typical US classrooms. And in Chinese and Japanese societies, the mother's value for and interest in education is pervasive.

Respect for the social good, harmony, and community order are among those cultural values which we have observed in economic and political systems in China and the fiscal and monetary policies of Japan. We can also observe these values in the classroom by the way Asian teachers conduct their classes. In Asia, students work as a class unit. Variations on problem solving and rote memorization are used to guide the group to an understanding or consensus. In contrast, it is not uncommon in the United States to be more concerned with the individual, nor is it generally required for all to meet a common standard.

Because of the cultural differences in values and learning extant in the US and Chinese educational systems, we approach the problem of assessing Chinese anxiety with a note of caution. Of direct influence appears to be the group vs. individual cultural orientation and how this value translates into classroom practices and learning expectations.

The terms, acculturation and adjustment, may convey the need for the foreign student to adapt to the US way learning before successful college performance can be achieved. However, if US colleges and universities are serious about assisting foreign students studying in their institutions, then perhaps the overtones of acculturation and adjustment should give way to the concept of cultural learning. If so, then should not we first

observe the anxiety of students in their native country? These assessments are critical to our evaluation of "normal" anxieties in country of origin and how student anxiety relates to the US learning environment.

It was the purpose of our study to assess the anxiety of Chinese students in their native country. We measured both trait anxiety and test anxiety in graduate schools of education in Taiwan.

Method and Procedures

Materials

A Self-Evaluation Inventory using a four-point rating scale was the instrument used in this study. The inventory combined the Trait Anxiety Scale (Spielberger, Gorch & Lushene, 1970) and the Test Anxiety Scale (Spielberger, 1980) with a total of forty items. The categorical data were coded into the numerical data in which 1 represented almost never, 2 represented sometimes, 3 represented often and 4 represented almost always.

Our inventory consisted of demographic information, items 1-20 measuring Spielberger's Trait Anxiety (1970), and items 21-40

measuring Spielberger's Test Anxiety (1980). Two subscales measure Test Anxiety, Worry and Emotionality. A table of specifications summarizes the structure of our Self-Evaluation Inventory.

(Insert Table 1)

Because the subjects of this study were Chinese (Taiwanese), our survey was translated into Chinese by one of the Authors and validated by university professors in Taiwan (See Attachment A for the Chinese translation of Self-Evaluation Inventory).

Subjects

Sixty-seven Taiwanese graduate students participated in this study. All subjects were in the field of education and from two teacher training universities in Taiwan. One university is located in southern Taiwan; the other, in northern Taiwan. There was a representative distribution by gender, 26 males and 38 females.

Procedures

The data for this survey were collected in a natural setting in May/June, 1989. The subjects were asked to rate forty statements describing their feelings of anxiety and test anxiety.

Automatic scoring and computations were performed in the United States using SPSS-X. Reliability analyses and intercorrelations were performed for total test scores and subscales. Gender differences were analyzed using t-tests, and descriptive statistics were obtained for all scales, subscales, and individual items.

Results

Correlational analyses revealed that internal consistencies were high for all scales and subscales, ranging from .82 - .93. A high correlation was observed between Worry and Emotionality subscales (r = .82), and both Test Anxiety (TA) subscales related to Trait Anxiety (r = .60, Trait Anxiety with Worry; r = .65, Trait Anxiety with Emotionality).

T-tests were performed between Male and Female subjects on the Trait Anxiety Scale, Worry subscale, and Emotionality subscale. No statistically significant differences were observed at the .05 level. These results are presented in Table 2.

(Insert Table 2)

Normative assessments of all scales and subscales showed that our sample means fell within the normal range defined in Test

Manuals (normal range was defined as plus or minus one standard deviation from scale and subscale means).

Rankings of Trait Anxiety and Test Anxiety items revealed topics of most and least anxiety for Taiwanese students. As can be noted from Table 3, items with the highest means are characterized by calm, cool, content, and confident; in contrast, items with lowest rankings deal with personal defeat and frailties.

(Insert Table 3)

Discussion

The International Society for Test Anxiety Research and their publications, Advances in Test Anxiety Research, have focused on theoretical and clinical problems associated with anxiety, test anxiety and performance, and cross-cultural studies. The reported research is important in itself, and reveals the continued need for comparative data. Dion and Toner's recent article (1988) provides an example of cross-cultural anxiety research, in which the Test Anxiety (TA) of Chinese students were compared with students of European and Anglo ethnic backgrounds, while all were studying in Canada. Statistically significant higher TA scores were reported for the Chinese group of students.

One explanation offered for higher Chinese TA scores was the Confucian ethic, with its stress upon education and scholastic excellence.

We do not claim that our sample is representative of all Chinese students, but our approach and data summaries suggest other reasons for the higher TA scores of Chinese students studying in Canada. The "Confusian ethic explanation" does not appear to satisfactorily counter a rival hypothesis...If TA scores are a result of the Confusian ethic outside of a student's native origin, then also high TA scores should prevail within his own country. However, our results have shown normal TA scores for our sample within Taiwan.

We recommend assessments within the country of origin as we interpret the anxiety of students studying in a foreign country. It may be more reasonable to assume that the many cultural learnings encountered by the foreign student are the sources of anxiety, including language barriers, culture shock, and differences in learning styles and expectations.

A second rival hypothesis might suggest that the Chinese society and its belief in the Confusian ethic engenders greater anxiety (Trait Anxiety) and produces greater TA. Our findings show that Trait Anxiety and Test Anxiety of our sample of Chinese students are substantially and positively related, and both

test scores are within normal ranges as measured by US norms. Our second recommendation for cross-cultural studies of student anxiety is to include additional observations which strengthen or qualify any thesis regarding affective measurement.

As stated above, we concluded that Chinese students did not differ substantially from US norms. Because of cultural differences, we observed the highest and lowest ranked Trait Anxiety and TA items, which led us to recommend that mean comparisons should be accompanied by a description in which ways samples differ.

The classroom in Taiwan may be characterized by overt competition and peer pressure as students learn and perform in classroom units. Within this broad generalization, it was not surprising to note that among the anxiety items ranked highest by the Chinese students were "calm, cool, content, and confident." In contrast, individual feelings of defeat, nervousness, and failure are among the lowest ranked items. If fact, the Chinese language does not have a direct translation of defeat in academic situations!

In summary, we have concluded from our findings and from those presented in the literature that cross-cultural studies are essential if we are to counsel foreign students effectively in and outside the classroom. Previous research indicates that international students do differ in their attitudes about seeking out help for psychological problems (Schneider and Spinler, 1986).

Eysenck (1989) stated that one approach to cognition is based on the assumption that differences in information processing between those high and low in anxiety will often depend on differential patterns of response as a function of stimulus content. Cultural antecedents may well provide the necessary insights for us to establish affectively productive and pleasurable environments for our foreign students.

Table 1. Table of specifications

Scale	Subscales
I. Trait Anxiety	a. TA: Item 1 to Item 20
II. Test Anxiety	b. Worry: I23 to I27, I34, I37, I40
	c. Emotionality: I22, I28 to I31, I35, I36, I38

Table 2. Mean comparisons of trait anxiety and TA by gender

	N	Mean	SD	SE	T Value	P	DF
Trait Anxiety (20 items)							
Male	26	42.81	6.26	1.23	-1.21	0.231	62
Female	38	44.71	6.12	0.99			
Worry (8 items)							
Male	24	14.38	4.00	0.82	0.34	0.738	59
Female	37	14.03	3.93	0.65			
Emotion (8 items)							
Male	26	15.69	4.68	0.92	-0.67	0.506	61
American	37	16.43	4.07	0.67			

Table 3. Ten items with highest and lowest means

Item No.	Mean	SD	Description of the item
The five highest ranking items:			
No. 21	2.662	0.735	I feel confident and relaxed while taking test
No. 7	2.631	0.782	I am "calm, cool, and collected"
No. 32	2.576	0.929	I wish exams did not bother me so much
No. 16	2.446	0.791	I am content
No. 20	2.415	0.727	I get in a state of tension or turmoil as I think over my recent concerns and interests
The five lowest ranking items:			
No. 40	1.561	0.636	During exams I get so nervous that I forget facts I really know
No. 34	1.652	0.734	I seem to defeat myself while working on important tests
No. 25	1.712	0.799	During exams I find myself thinking about whether I'll ever get through school
No. 5	1.758	0.583	I feel like a failure
No. 33	1.758	0.824	During important tests I am so tense that my stomach gets upset

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ATTACHMENT A

Chinese Translation of Self-Evaluation Inventory

自我評估問卷調查

說明：以下是我們時常用以描述自己內心狀況及情緒的一些陳述，請不必花費太多時間在每個問題上，只需選出最適合您個人狀況的號碼，謝謝您填寫這份問卷。（1.□幾乎不曾有過　2.□有時候　3.□常常　4.□幾乎都是如此）

1. 我覺得愉快……1.□ 2.□ 3.□ 4.□
2. 我覺得緊張……1.□ 2.□ 3.□ 4.□
3. 我對自己滿意……1.□ 2.□ 3.□ 4.□
4. 我但願自己能和別人同樣的快樂……1.□ 2.□ 3.□ 4.□
5. 我覺得自己是個失敗者……1.□ 2.□ 3.□ 4.□
6. 我覺得心情輕鬆……1.□ 2.□ 3.□ 4.□
7. 我是冷靜、鎮定的人……1.□ 2.□ 3.□ 4.□
8. 我覺得困難重重無法克服……1.□ 2.□ 3.□ 4.□
9. 我煩惱太多不必要的事……1.□ 2.□ 3.□ 4.□
10. 我是快樂的人……1.□ 2.□ 3.□ 4.□
11. 我的思緒頻亂……1.□ 2.□ 3.□ 4.□
12. 我缺乏信心……1.□ 2.□ 3.□ 4.□
13. 我有安全感……1.□ 2.□ 3.□ 4.□
14. 我容易作決定……1.□ 2.□ 3.□ 4.□
15. 我覺得能力不足……1.□ 2.□ 3.□ 4.□
16. 我是個滿足現況的人……1.□ 2.□ 3.□ 4.□
17. 有時不重要的事困擾我……1.□ 2.□ 3.□ 4.□
18. 我對不合我意的事很在意能是不能忘懷……1.□ 2.□ 3.□ 4.□
19. 我是個情緒穩定的人……1.□ 2.□ 3.□ 4.□
20. 當我想到最近發生及必須完成的事，不自覺的感到緊張、情緒不穩……1.□ 2.□ 3.□ 4.□
21. 當我參加考試時，我覺得自信且不緊張……1.□ 2.□ 3.□ 4.□
22. 當我參加考試時，我有不自在、不舒服的感覺……1.□ 2.□ 3.□ 4.□
23. 考慮我的課當成績而影響我的考試……1.□ 2.□ 3.□ 4.□
24. 我在重要的考試時感到冷顫、緊張……1.□ 2.□ 3.□ 4.□
25. 當考試時，我想到自己是否能畢業……1.□ 2.□ 3.□ 4.□
26. 準備考試時，總得查多查述細……1.□ 2.□ 3.□ 4.□
27. 想到自己可能會考得不好，而無法專心作答……1.□ 2.□ 3.□ 4.□
28. 當在參加一個重要考試時，我覺得非常緊張……1.□ 2.□ 3.□ 4.□
29. 即使準備充足，仍然會對考試感到緊張……1.□ 2.□ 3.□ 4.□
30. 發回試卷時，我開始覺得不自在……1.□ 2.□ 3.□ 4.□
31. 考試時，我覺得非常有壓迫感……1.□ 2.□ 3.□ 4.□
32. 我但願考試能不影響我的心情……1.□ 2.□ 3.□ 4.□
33. 在重要考試時，沈重的壓力讓我的胃感到不舒服……1.□ 2.□ 3.□ 4.□
34. 當參加重要考試時，我似乎被擊倒了……1.□ 2.□ 3.□ 4.□
35. 當參加重要考試時，我覺得非常緊張……1.□ 2.□ 3.□ 4.□
36. 在參加重要考試前我非常擔心……1.□ 2.□ 3.□ 4.□
37. 在考試時我會想到考不好的後果……1.□ 2.□ 3.□ 4.□
38. 當參加重要考試時，我覺得心跳加速……1.□ 2.□ 3.□ 4.□
39. 考試之後，我仍然無法停止憂慮……1.□ 2.□ 3.□ 4.□
40. 當考試時，我如此緊張，以至忘了原本會的題目……1.□ 2.□ 3.□ 4.□

個人資料：

1. 性別：□男□女　2.出生年月日：西元　年　月　日　3.教育組屬：□研究生□大學部　4.就讀科系：　5.最後一次考試日期：西元　年　月　日；即將考試日期：西元　年　月　日。